

Claims

- [c1] A communication processing apparatus that receives an SNMP-based command to execute said received command, comprising:
- a first communication port, which is set as a management port, that receives one or more command transmitted from a management apparatus of said communication processing apparatus to said communication processing apparatus, said one or more command including a first command that is executable to change a setting of said management port and a second command;
 - a storage unit that stores said one or more command received by said first communication port;
 - an execution unit that obtains said one or more command from said storage unit to execute said obtained command; and
 - a re-execution instruction unit that directs said execution unit to execute said second command after said first command that changes said setting of said management port, when said execution unit has executed said first command that changes said setting of said management port.
- [c2] A communication processing apparatus as claimed in claim 1, wherein:
- said second command is received by said first communication port after said first command and is executable to set said management port of said communication processing apparatus to said first communication port.
- [c3] A communication processing apparatus as claimed in claim 1, further comprising:
- a second communication port connected to an external communication apparatus;
 - a communication mode selecting unit that selects one communication mode of a plurality of communication modes to specify each of a plurality of communication operations of said communication processing apparatus; and
 - a management port selecting unit that selects said management port from one of said first communication port and said second communication port, wherein said management port selecting unit selects said first communication port as

said management port;

said execution unit obtains said one or more command stored in said storage unit to execute said obtained command when said first communication port receives said one or more command including

a communication mode set command that specifies a communication mode of said communication processing apparatus, a management port set command that sets said management port of said communication processing apparatus to said first communication port, and a start execution command that instructs to start sequential execution of said one or more command stored in said storage unit;

said communication mode selecting unit selects said communication mode specified by said communication mode set command, when said communication mode set command is executed;

said management port selecting unit selects a default management port, corresponding to said communication mode selected by said communication mode selecting unit, from said first communication port and said second communication port;

said re-execution instruction unit instructs said execution unit to execute said second command after execution of said communication mode set command;

and

said management port selecting unit selects said first communication port as said management port, when said management port set command is executed.

[c4] A communication processing apparatus as claimed in claim 3, further comprising:

an interconnecting unit that interconnects communication between said first communication port and said second communication port; and

a VLAN setting unit that sets said interconnecting unit to control communication between said first communication port and said second communication port corresponding to said communication mode selected by said communication mode selecting unit.

[c5] A communication processing apparatus as claimed in claim 1, further comprising:

a second communication port connected to an external communication apparatus;
 an interconnecting unit that interconnects communication between said first communication port and said second communication port, wherein said execution unit obtains said one or more command stored in said storage unit to execute said obtained command when said first communication port set as said management port receives a start execution command that instructs to start sequential execution of said one or more command stored in said storage unit, and
 it is determined that said interconnect of said communication between said first communication port and said second communication port, received before said first communication port receives said start execution command, is completed.

[c6]

A communication processing apparatus as claimed in claim 1, further comprising:
 a second communication port connected to an external communication apparatus;
 an interconnecting unit that interconnects communication between said first communication port and said second communication port, wherein said execution unit delays said interconnect of said communication between said first communication port and said second communication port until execution of said one or more command stored in said storage unit is completed, when said communication between said first communication port and said second communication port is received after said first communication port set as said management port receives a start execution command that instructs to start sequential execution of said one or more command stored in said storage unit.

[c7]

A management apparatus that transmits one or more SNMP-based command to a communication processing apparatus, said communication processing apparatus having a communication port set as a management port which receives said one or more command; stores said one or more command received by said communication port for executing said stored command; and executes said stored command after a previous command that changes a

setting of said management port, when said previous command that changes said setting of said management port is executed, said management apparatus comprising:

a generation unit that generates one or more command, including a first command that changes a setting of the management port in the communication processing apparatus and a second command that is executed after said first command, when said first command that changes a setting of the management port in the communication processing apparatus is executed; and
a transmit unit that transmits said one or more command generated by said generation unit to the communication processing apparatus and directs the communication processing apparatus to execute said one or more command.

[c8]

A management apparatus as claimed in claim 7, wherein said generation unit generates said one or more command including
a communication mode set command that sets a communication mode of said communication processing apparatus, a management set command that sets said management port of said communication processing apparatus to said communication port, and a start execution command that instructs to start sequential execution of said one or more command.

[c9]

A computer-readable medium storing a program for a management apparatus that transmits one or more SNMP-based command to a communication processing apparatus, said communication processing apparatus having a communication port set as a management port which receives said one or more command; stores said one or more command received by said communication port for executing said stored command; and executes said stored command after a previous command that changes a setting of said management port, when said previous command that changes said setting of said management port is executed, said computer-readable medium storing a program comprising:

a generation module that directs the management apparatus to generate one or more command including a first command that changes a setting of the management port in the communication processing apparatus; and
a transmit module that directs the management apparatus to transmit said one

or more command generated by the management.

[c10] A computer-readable medium storing a program as claimed in claim 9, wherein said generation module directs the management apparatus to generate said one or more command including

a communication mode set command that sets a communication mode of said communication processing apparatus, a management set command that sets said management port of said communication processing apparatus to said communication port, and a start execution command that instructs to start sequential execution of said one or more command.

[c11] A communication system comprising a communication processing apparatus that receives an SNMP-based command to execute said received command and a management apparatus transmitting said command to said communication processing apparatus, said communication processing apparatus comprising:

a first communication port, which is set as a management port, which receives one or more command transmitted from said management apparatus to said communication processing apparatus, said one or more command including a first command that is executable to change a setting of said management port and a second command;

a storage unit that stores said one or more command received by said first communication port;

an execution unit that obtains said one or more command from said storage unit to execute said obtained command; and

a re-execution instruction unit that makes said execution unit execute said second command after said first command that changes a setting of said management port, when said execution unit executes said first command that changes said setting of said management port,

said management apparatus comprising:

a generation unit that generates said one or more command including said first command that changes said setting of said management port in said communication processing apparatus and said second command; and

a transmit unit that transmits said one or more command generated by said

generation unit to said communication processing apparatus and directs said communication processing apparatus to execute said one or more command.

[c12]

A communication system as claimed in claim 11, wherein said communication processing apparatus further comprises

a second communication port connected to an external communication apparatus;

a communication mode selecting unit that selects one communication mode of a plurality of communication modes to specify each of a plurality of communication operations in said communication processing apparatus; and
a management port selecting unit that selects said management port from one of said first communication port and said second communication port, wherein in said management apparatus, said generation unit generates said one or more command including

a communication mode set command that sets a communication mode of said communication processing apparatus, a management set command that sets said management port of said communication processing apparatus to said first communication port, and a start execution command that instructs to start sequential execution of said one or more command stored in said storage unit, and

in said communication processing apparatus, said execution unit sequentially obtains said one or more command stored in said storage unit to execute said obtained command,

said communication mode selecting unit selects said communication mode specified by said communication mode set command, when said communication mode set command is executed,

said management port selecting unit selects a default management port, corresponding to said communication mode selected by said communication mode selecting unit, from said first communication port and said second communication port,

said re-execution instruction unit instructs said execution unit to execute said management port set command after execution of said communication mode set command, and

said management port selecting unit selects said first communication port as
said management port, when said management port set command is executed.

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